

DEPARTMENT of ENVIRONMENTAL SERVICES  
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: NORWAY POND	Lake Area (ha): 20.03
Town: HANCOCK	Maximum depth (m): 5.5
County: Hillsborough	Mean depth (m): 2.5
River Basin: Merrimack	Volume (m <sup>3</sup> ): 509000
Latitude: 42°58'33" N	Relative depth: 1.1
Longitude: 71°59'11" W	Shore configuration: 1.20
Elevation (ft): 825	Areal water load (m/yr): 48.87
Shore length (m): 1900	Flushing rate (yr <sup>-1</sup> ): 19.20
Watershed area (ha): 1839.9	P retention coeff.: 0.36
% watershed ponded: 2.1	Lake type: natural

BIOLOGICAL:

		18 January 1996	27 June 1995
DOM. PHYTOPLANKTON (% TOTAL)	#1	ASTERIONELLA 70%	DINOBRYON 30%
	#2	COELOSPHAERIUM 10%	SYNURA 25%
	#3		CERATIUM 15%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			
DOM. ZOOPLANKTON (% TOTAL)	#1	KERATELLA 69%	VORTICELLA 36%
	#2	KELLICOTTIA 9%	KELLICOTTIA 19%
	#3	CALANOID COPEPOD 9%	NAUPLIUS LARVA 10%
ROTIFERS/LITER		75	76
MICROCRUSTACEA/LITER		17	90
ZOOPLANKTON ABUNDANCE (#/L)		94	273
VASCULAR PLANT ABUNDANCE			Common
SECCHI DISK TRANSPARENCY (m)			3.8
BOTTOM DISSOLVED OXYGEN (mg/L)		6.6	0.8
BACTERIA (E. coli, #/100 ml)	#1		4
	#2		< 1
	#3		

SUMMER THERMAL STRATIFICATION:

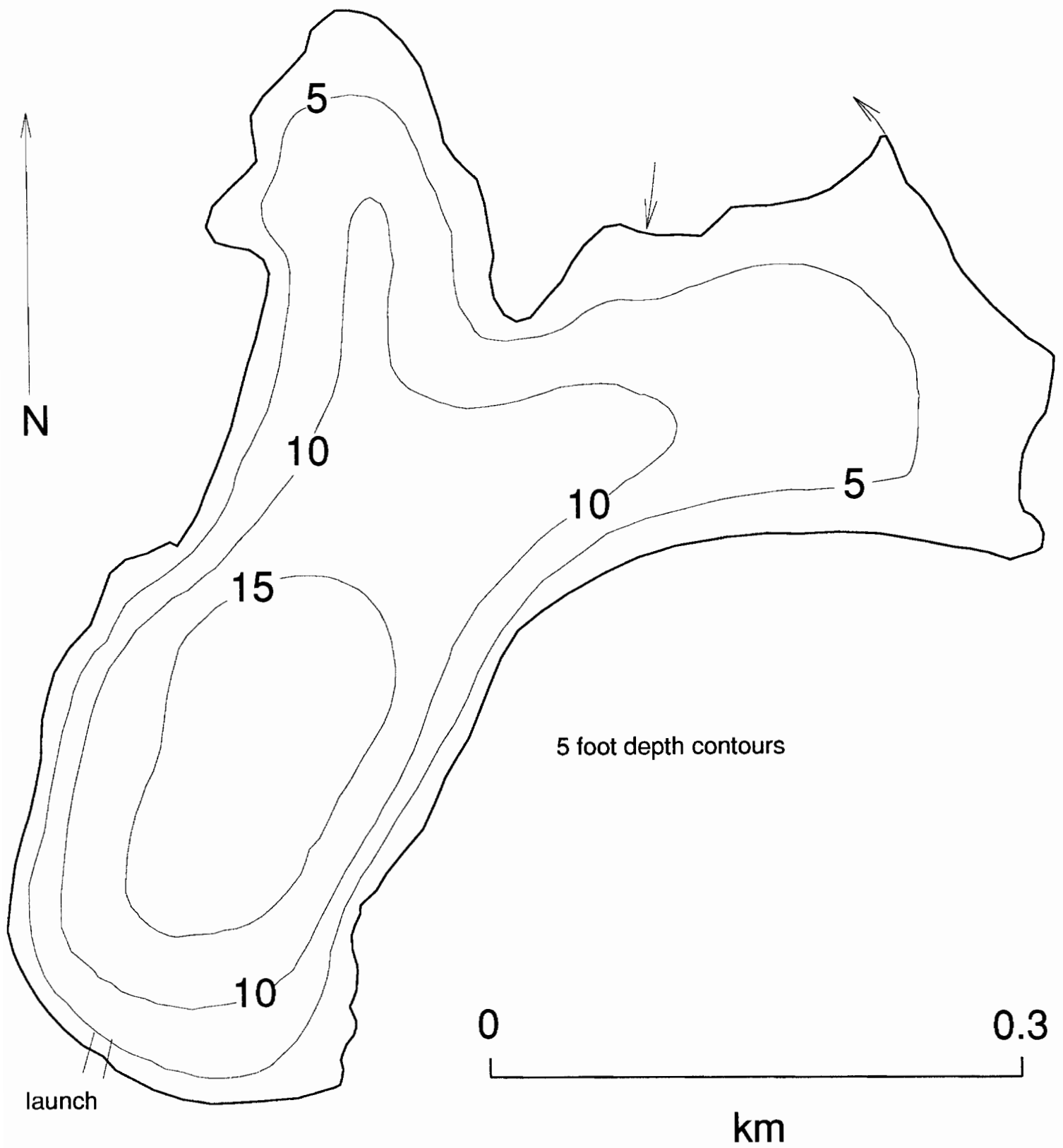
stratified

Depth of thermocline (m): 2.7  
Hypolimnion volume (m<sup>3</sup>): None  
Anoxic volume (m<sup>3</sup>): 2100

<b>CHEMICAL:</b>		Lake: NORWAY POND Town: HANCOCK			
	18 January 1996	27 June 1995			
DEPTH (m)	2.0	4.0	1.0	3.5	5.0
pH (units)	6.0	5.7	6.7	6.4	6.0
A.N.C. (Alkalinity)	4.3	3.8	3.5	2.5	4.4
NITRATE NITROGEN	< 0.10	< 0.10	< 0.10		0.09
TOTAL KJELDAHL NITROGEN	0.30	0.24	0.32	0.32	0.32
TOTAL PHOSPHORUS	0.005	0.006	0.010	0.014	0.013
CONDUCTIVITY ( $\mu$ mhos/cm)	40.6	42.6	44.6	44.1	46.6
APPARENT COLOR (cpu)	44	48	30	40	45
MAGNESIUM			0.48		
CALCIUM			2.3		
SODIUM			5.2		
POTASSIUM			0.46		
CHLORIDE	4	5	6		10
SULFATE	5	5	4		4
TN : TP	60	40	32		32
CALCITE SATURATION INDEX			3.7		
All results in mg/L unless indicated otherwise					
<b>TROPHIC CLASSIFICATION: 1995</b>					
	D.O.	S.D.	PLANT	CHL	TOTAL CLASS
	**	2	3	**	5 Meso.
<b>COMMENTS:</b>					
<ol style="list-style-type: none"> <li>1. This pond was previously surveyed and classified in 1980. There was no change in the assigned classification and little change in water quality between the two years, although the macrophyte growth did appear a little more abundant in 1995.</li> <li>2. The pond joined DES' Volunteer Lake Assessment Program in 1994. It is too early to evaluate trends.</li> <li>3. Moose Brook, which drains from Willard Pond in Antrim, is the main tributary to the pond. It enters a wetland near the outlet of the pond--some tributary water may enter the pond and some may go directly to the outlet. The watershed area and flushing rate values presented on the preceding page assumes Moose Brook is part of the Norway Pond watershed. If we do not include Moose Brook in the watershed, the watershed of Norway Pond becomes 44.3 ha and the flushing rate is only 0.4 times/year. Very slow water circulation probably occurs at the town beach located at the southern end of the pond ( it appears from the topography that the natural outlet of Norway Pond may have been at the southern end but was dammed up by the construction of Route 123).</li> <li>4. There is a 10 mph speed limit for boats on Norway Pond.</li> </ol>					

# Norway Pond

## Hancock

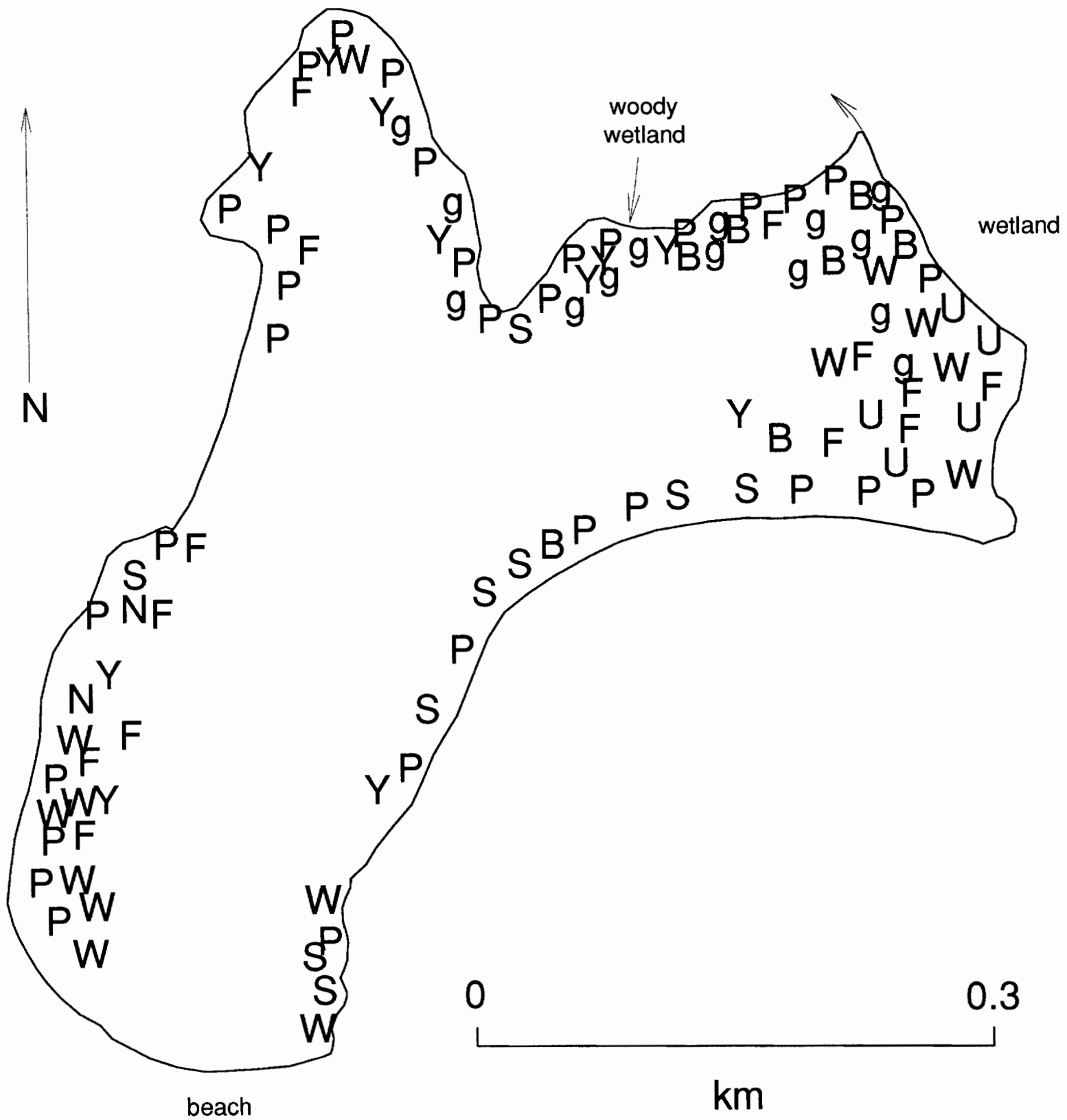


[illegible]

COMMENTS :

111 - 197

# Hancock



[illegible]